OTAY CROSSINGS COMMERCE PARK

APPENDIX F

BIOLOGICAL RESOURCES REPORTS

to the

DRAFT SUPPLEMENTAL
ENVIRONMENTAL IMPACT REPORT

EIR 93-19-006Q, TM 5405RPL[7]
SCH No. 2006041039

Lead Agency:

County of San Diego
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OTAY CROSSINGS COMMERCE PARK

ON-SITE BIOLOGICAL OPEN SPACE RESOURCE MANAGEMENT PLAN SPA 04-006, TM5405RPL4

May 11, 2010

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Otay Crossings Commerce Park
On-site Biological Open Space Resource Management Plan

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LIST OF ABBREVIATIONS

AMSL	above mean sea level
BOS	Biological Open Space
Cal-IPC	California Invasive Plant Council
CDFG	California Department of Fish and Game
CNPS	California Native Plant Society
County	County of San Diego
DPLU	Department of Planning and Land Use
EOMSP	East Otay Mesa Specific Plan
HELIX	HELIX Environmental Planning, Inc.
MOU	Memorandum of Understanding
MSCP	Multiple Species Conservation Program
OHV	off-highway vehicle
PAR	Property Analysis Record
QCB	Quino checkerspot butterfly
RMP	Resource Management Plan
SR	State Route
SSC	Species of Special Concern
TM	Tentative Map
USFWS	U.S Fish and Wildlife Service

1.0 INTRODUCTION

This Resource Management Plan (RMP) has been prepared for the proposed 47.4-acre Otay Crossings Commerce Park On-Site Biological Open Space (BOS) preserve in accordance with mitigation requirements identified in the project's biological technical report (HELIX Environmental Planning, Inc. [HELIX] 2010a). This RMP provides direction for the permanent preservation and management of the BOS preserve in accordance with County of San Diego (County) regulations.

1.1 PURPOSE OF RESOURCE MANAGEMENT PLAN

The purpose of this RMP is to provide guidance in which to ensure preservation of native habitats and long-term management of the BOS. This RMP:

1. Guides management of vegetation communities and habitats, plant and animal species, cultural resources, and programs described herein to protect and, where appropriate, enhance biological and cultural resources;
2. Serves as a descriptive inventory of vegetation communities and plant and animal species that occur within the BOS;
3. Serves as a descriptive inventory of archaeological and/or historical resources that occur within the BOS;
4. Establishes the baseline conditions from which adaptive management will be determined and success will be measured; and
5. Provides an overview of the operation, maintenance, administrative, and personnel requirements to implement management goals, and serves as a budget planning aid.

The Otay Crossings Commerce Park project site is a Tentative Map (TM) and Preliminary Grading Plan (Tract 5405) for land designated for Mixed Industrial, Rural Residential, and State Route ([SR]; i.e., SR 11) use in Subarea 2 of the East Otay Mesa Specific Plan (EOMSP). The TM would subdivide the 311.5-acre property into 56 industrial lots, with the potential SR 11 alignment and Port of Entry occurring on portions of 2 lots and biological open space easements over portions of 5 lots. Biological open space on site will consist of a total of 47.4 acres divided into 3 locations on the project site, in addition to a 3.6 acre wetland and upland restoration area in the north-central portion of the site. The 3.6 acre area will be maintained for water quality purposes, but will not be required to meet RMP obligations unless it is determined through the wetland permitting process that this area will be acceptable for wetland mitigation requirements.

Project-related direct impacts to vegetation communities include: 0.97 acre of tamarisk scrub, 0.1 acre of native grassland, 2.0 acres of Diegan coastal sage scrub (including disturbed), 263.3 acres of non-native grassland, 1.0 acre of eucalyptus woodland, 0.7 acre of agricultural land, 20.8 acres of disturbed habitat, and 5.7 acres of developed land. Indirect impacts associated with construction activities and edge effects also would occur.

Impacts to 72 individual San Diego barrel cacti (*Ferocactus viridescens*), 138 individual San Diego marsh-elder (*Iva hayesiana*), 44 individual San Diego sunflower (*Viguiera laciniata*), and 15 individual small-flowered morning glory (*Convolvulus simulans*) would occur upon project implementation.

Four (4) burrowing owl (*Athene cunicularia*) locations would be directly or indirectly impacted, as well as 2 locations where Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) were observed during 2001 focused surveys. The project also would impact habitat occupied by Riverside fairy shrimp (*Streptocephalus woottoni*), San Diego fairy shrimp (*Branchinecta sandiegonensis*), western spadefoot (*Spea hammondii*), coastal western whiptail (*Cnemidophorus tigris multiscutatus*), California horned lark (*Eremophila alpestris*), loggerhead shrike (*Lanius ludovicianus*), grasshopper sparrow (*Ammodramus savannarum*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), and golden eagle (*Aquila chrysaetos*).

Preservation of 47.4 acres on site, plus an additional 206 acres off site (covered under separate RMPs), will permanently protect high quality habitat supporting numerous sensitive species.

1.1.1 Conditions and/or Mitigation Measures that Require an RMP

This RMP satisfies County requirements for public review of the project pursuant to the California Environmental Quality Act and conditions that will be part of the Resolution of Approval. Project conditions requiring an RMP include mitigation for impacts to Diegan coastal sage scrub, non-native grassland, sensitive plants (San Diego barrel cactus and San Diego marsh-elder), and sensitive animals (burrowing owl, QCB, Riverside fairy shrimp, San Diego fairy shrimp, California horned lark, grasshopper sparrow, loggerhead shrike, northern harrier, white-tailed kite, golden eagle, western spadefoot, and coastal western whiptail).

1.1.2 Agency Review and Coordination

A copy of the final RMP will be submitted to the U.S Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) for approval.

1.2 IMPLEMENTATION

1.2.1 Responsible Parties

The project applicant will contract with a qualified entity to serve as Resource Manager. The USFWS, CDFG, County Department of Planning and Land Use (DPLU), and project applicant will jointly approve the selection of a Resource Manager, who must be an established conservancy group or land manager, County Department of Parks and Recreation, County Department of Public Works, a federal or state wildlife agency, or a federal land manager. Additionally, the Resource Manager must possess the following qualifications:

- Ability to carry out habitat monitoring or mitigation activities;
- Fiscal stability, including preparation of an operational budget (using an appropriate analysis technique) for the management of this RMP;
- Resource managers must have at least 1 staff member with a biological, ecological, or wildlife management degree;
- Resource managers must have a cultural resource professional on staff or a memorandum of understanding with a cultural consultant; and
- Experience with habitat management in southern California.

All BOS and/or conservation easements must be recorded prior to initiation of project impacts. Fee title of all BOS must be transferred to the Resource Manager prior to the Resource Manager initiating long-term management responsibilities.

The 47.4 acres of land to be dedicated as BOS includes a 6.4-acre area of disturbed habitat that will be restored to grassland. An additional 3.6-acre wetland and upland restoration area (including 0.97 acre being restored to riparian scrub/floodplain scrub) also will be preserved. Following successful revegetation, if it is determined that this area will be acceptable to meet wetland mitigation obligations through the wetland permitting process, management responsibility will be transferred to the Resource Manager. Otherwise maintenance would be the responsibility of the landowner.

1.2.2 Financial Responsibility/Mechanism

The project applicant is responsible for all RMP funding requirements, including direct funds to support the RMP start-up tasks as well as an on-going funding source for annual tasks. Currently it is anticipated that long-term management funding will be provided through annual assessments of the Property Owners Association or similar vehicle. Start-up tasks include fence installation around the on-site BOS and data base compilation. Long-term tasks involve the management and maintenance of the BOS in perpetuity, including habitat monitoring and mapping, exotic species control, and general monitoring and reporting. These habitat management tasks commence immediately upon initiation of long-term management by the Resource Manager.

1.2.3 Cost Estimate/Budget

A Property Analysis Record (PAR) and cost estimate will be prepared for the on-site 47.4-acre BOS when a Resource Manager has been identified.

1.2.4 Reporting Requirements

An annual letter report will be submitted to the USFWS, CDFG, and County that will summarize the previous year's management and monitoring as well as that anticipated for the upcoming year. The report will provide a summary of methods employed, identify new management issues, and address the success or failure of previous management approaches based on monitoring. It shall include a summary of the overall condition of vegetation communities and sensitive species in the BOS, assess any changes from the baseline or from the previous year's conditions, and address any monitoring and management limitations. All adaptive management (changes) resulting from previous monitoring results and methods for measuring the success for such adaptive management will be discussed.

The results of all updated vegetation mapping and sensitive plant and animal surveys will be included in the annual letter reports.

1.2.5 Memorandum of Understanding

The County requires a Memorandum of Understanding (MOU) with the project applicant, County, and Resource Manager to be provided upon County acceptance of this RMP. The MOU

will state that the applicant agrees to implement the RMP, which includes a financing mechanism that provides perpetual funding that is adequate to pay the costs of all RMP management activities. The MOU shall provide a mechanism of the funds to transfer to the County in the event of failure of the Resource Manager to meet the goals outlined in this RMP. The MOU shall also provide that all RMP funding has been provided or that the funding mechanism has been established prior to the approval of grading or improvement plans, or prior to approval of the Parcel/Final Map, whichever is first.

2.0 PROPERTY DESCRIPTION

2.1 LEGAL DESCRIPTION

The Otay Crossings Commerce Park BOS is located in the southeastern portion of Otay Mesa within San Diego County (Figure 1). The property lies to the southeast of the intersection of Otay Mesa and Alta roads just north of the U.S./Mexico border. It occupies portions of Sections 31 and 32 within Township 18 South, Range 1 East of the U.S. Geological Survey 7.5-minute Otay Mesa quadrangle (Figure 2). The property consists of the following Assessor's Parcel Numbers: 648-070-03 and 648-080-27 (Figure 3).

2.2 GEOGRAPHICAL SETTING

The on-site BOS consists of 3 areas occurring along the eastern and southern edges of the project boundary, at the base of the foothills of the San Ysidro Mountains and adjacent to the U.S./Mexico border (Figure 3). Elevations range from approximately 480 feet above mean sea level (AMSL) at points along the southern boundary to approximately 700 feet AMSL in the site's northeastern corner. Several dirt roads cross the site and are regularly traveled by the U.S. Border Patrol. Access to the site is currently via Alta Road, south from its intersection with Otay Mesa Road. Upon development of the areas not targeted for conservation on site, the applicant will insure that the Habitat Manager has access to perform management obligations.

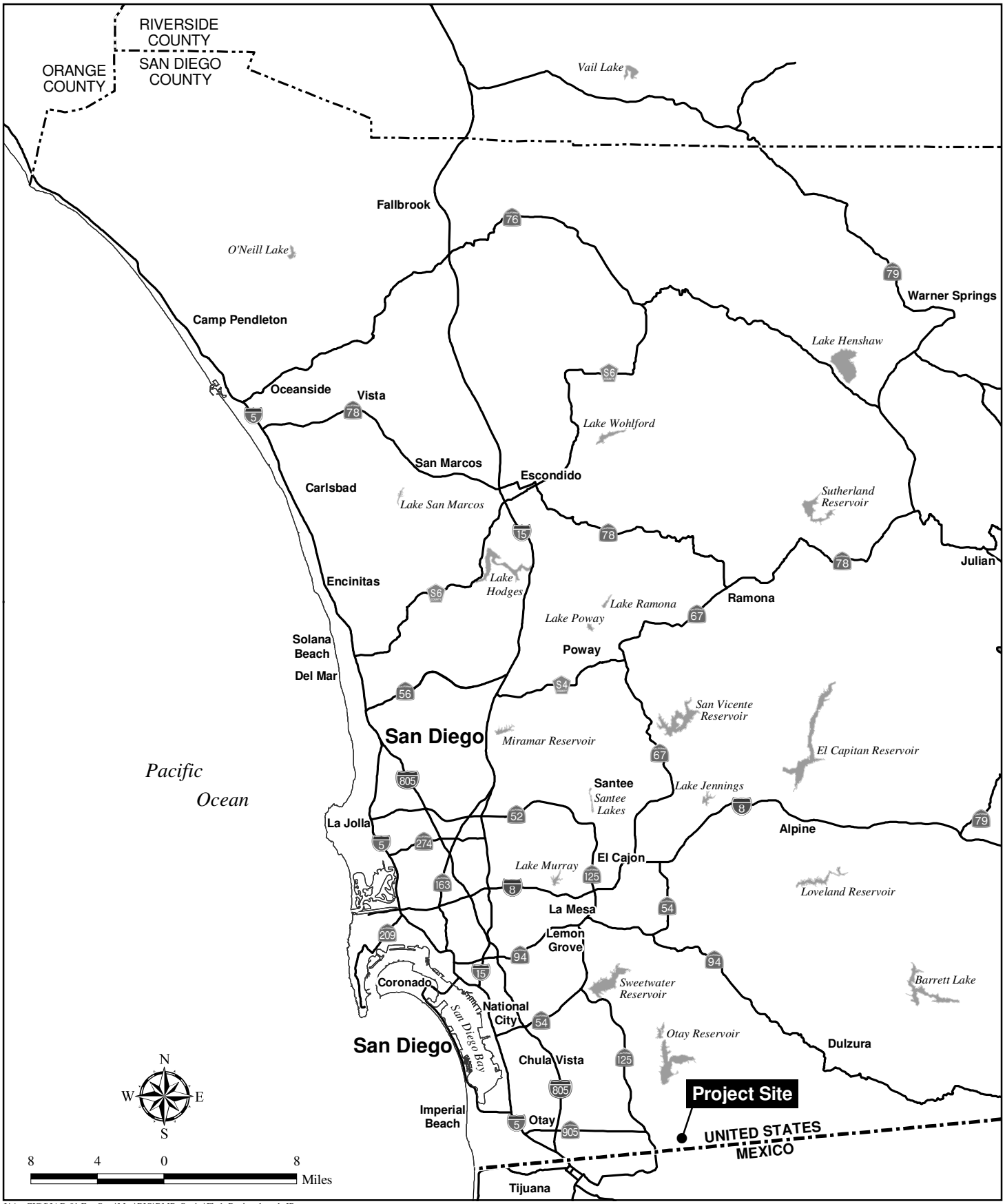
The BOS is located within the South County Segment of the County's Multiple Species Conservation Program (MSCP) Subarea Plan and contains areas designated in the MSCP as Major Amendment Areas, Minor Amendment Areas, and Minor Amendment Areas Subject to Special Consideration.

2.3 LAND USE

The BOS consists of low hills at the western foothills of the San Ysidro Mountains as well as flatter portions of the mesa west of the foothills, and primarily supports grassland and sage scrub communities. No improvements are located within the BOS. Adjacent properties consist of undeveloped land, except for the southernmost area, which is bordered to the south by the City of Tijuana, Mexico.

2.4 GEOLOGY, SOILS, CLIMATE, AND HYDROLOGY

The BOS is located in the Peninsular Range Geomorphic Province of southern California. Soils mapped within the BOS consist of Huerhuero loam and San Miguel-Exchequer rocky silt loam



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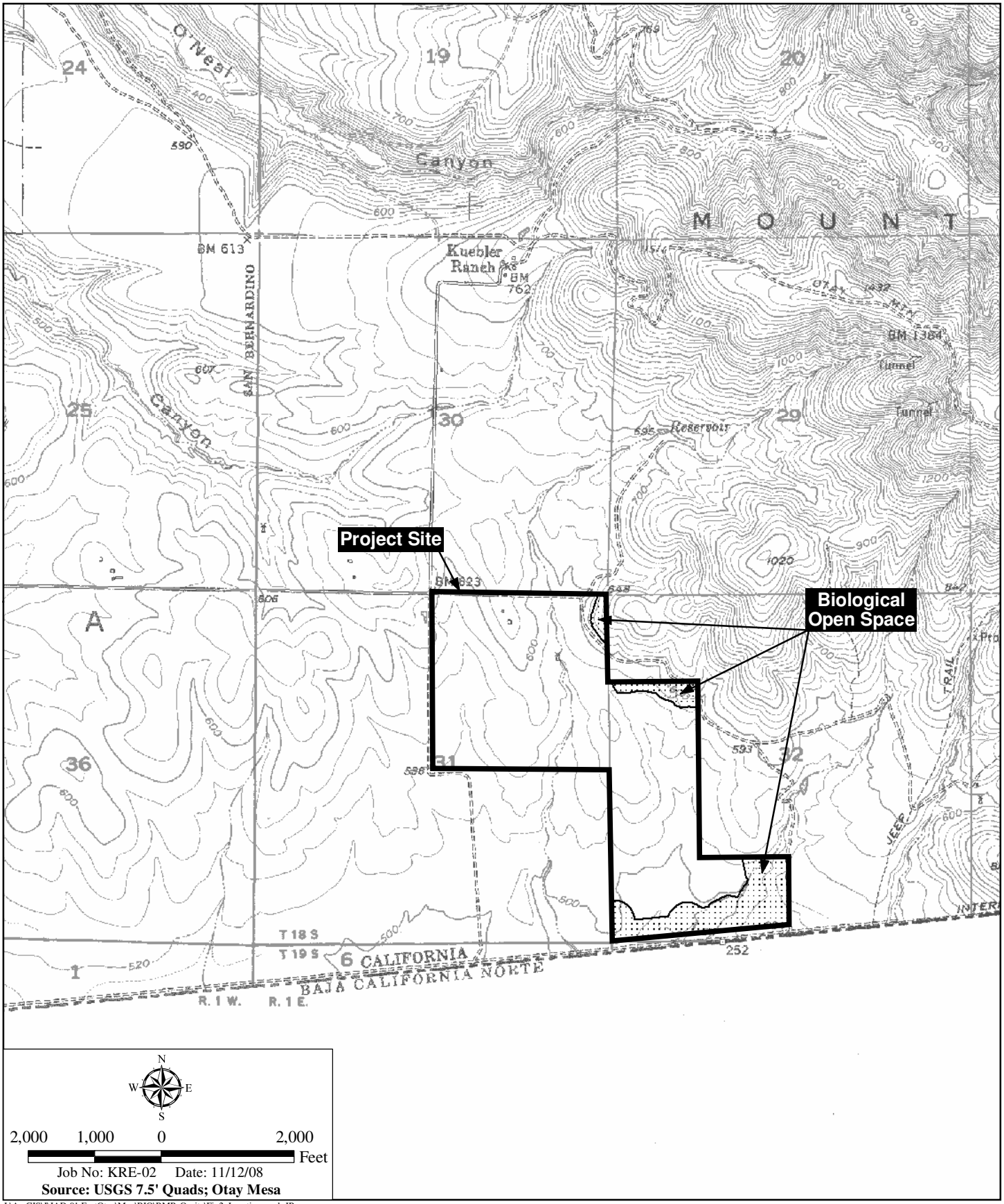
Regional Location Map

OTAY CROSSINGS COMMERCE PARK

HELIX

Figure 1



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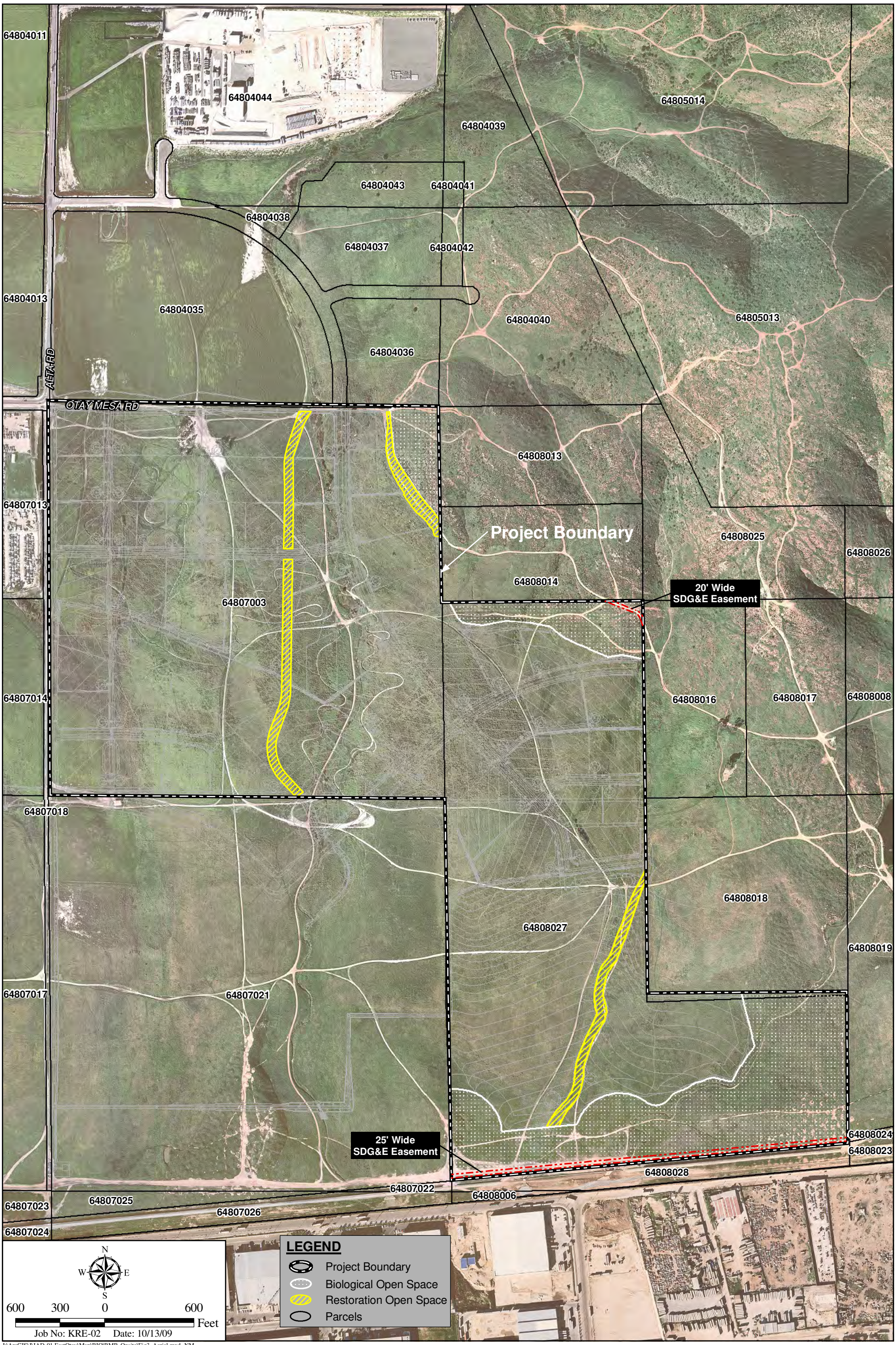
Project Location Map

OTAY CROSSINGS COMMERCE PARK

HELIX

Figure 2



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Biological Open Space/Easements

OTAY CROSSINGS COMMERCE PARK

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Figure 3

(Bowman 1973). Huerhuero loams are moderately well drained loams with a clay subsoil. The Huerhuero loam association is made up of soils that developed in sandy marine sediments. San Miguel-Exchequer rocky silt loam, which is typically found in mountainous uplands, consists of silt loams with a clay subsoil. The San Miguel-Exchequer association is made up of soils that developed in metavolcanic rock (Bowman 1973).

The climate in San Diego County is generally mild and arid. Temperatures in Otay Mesa are generally highest in September (mean high temperatures are 79°F) and lowest in December (mean low temperatures are 45°F). Average annual precipitation in the Otay Mesa is approximately 9.9 inches, with the highest average rainfall totals occurring in January and February (1.99 inches) and March (2.07 inches). The driest months are June, July, and August with approximately 0.08, 0.03, and 0.08 inch of rainfall per month, respectively (Weather.com 2008).

The site is located within the Water Tanks Hydrologic Subarea and Tijuana Valley Hydrologic Area of the Tijuana Hydrologic Unit within the Tijuana River watershed. Nearly three-quarters of the Tijuana River watershed is within Mexico. A single drainage occurs within the BOS; it is a narrow, mostly unvegetated feature that traverses through the southern BOS area and enters a culvert into Mexico at the Border Fence. This drainage supports a small amount of mostly non-native wetland vegetation.

2.5 TRAILS

A number of dirt roads cross the BOS, carved out of native vegetation and non-native grassland by off-highway vehicles (OHV) and Border Patrol vehicles (Figure 3). These areas will be restored as part of the mitigation requirement for the project. No trails are proposed.

2.6 EASEMENTS OR RIGHTS

Two (2) San Diego Gas & Electric utility easements exist across the BOS: (1) a 25-foot wide easement along the southern edge of the BOS, parallel to the U.S./Mexico border, and (2) a 20-foot wide easement in the northeastern corner (Figure 3).

2.7 FIRE HISTORY

The rate of fires in San Diego County coastal shrublands generally increased over the last half of the 20th century. Over 600 fires have occurred in the foothills and mountains of San Diego County between 1910 and 1999, and several major fires in excess of 50,000 acres have occurred in recent years, likely as a result of drought conditions. The BOS did not burn in the 2003 or 2007 fires, or in recent preceding years.

3.0 BIOLOGICAL RESOURCES DESCRIPTION

3.1 VEGETATION COMMUNITIES

Four (4) vegetation communities occur within the BOS: disturbed wetland, Diegan coastal sage scrub (including disturbed), non-native grassland, and disturbed habitat (Table 1; Figure 4). An additional 3.6 acres is being restored to riparian scrub/floodplain scrub and upland habitat in the north-central portion of the site (HELIX 2010b).

Table 1
VEGETATION COMMUNITIES WITHIN THE BOS

Vegetation Community/Habitat*	Acre(s) †
Disturbed wetland (11200)	0.03
Diegan coastal sage scrub (including disturbed; 32500)	6.8
Non-native grassland (42220)	34.2**
Disturbed habitat (11300)	6.4
TOTAL	**47.4††**

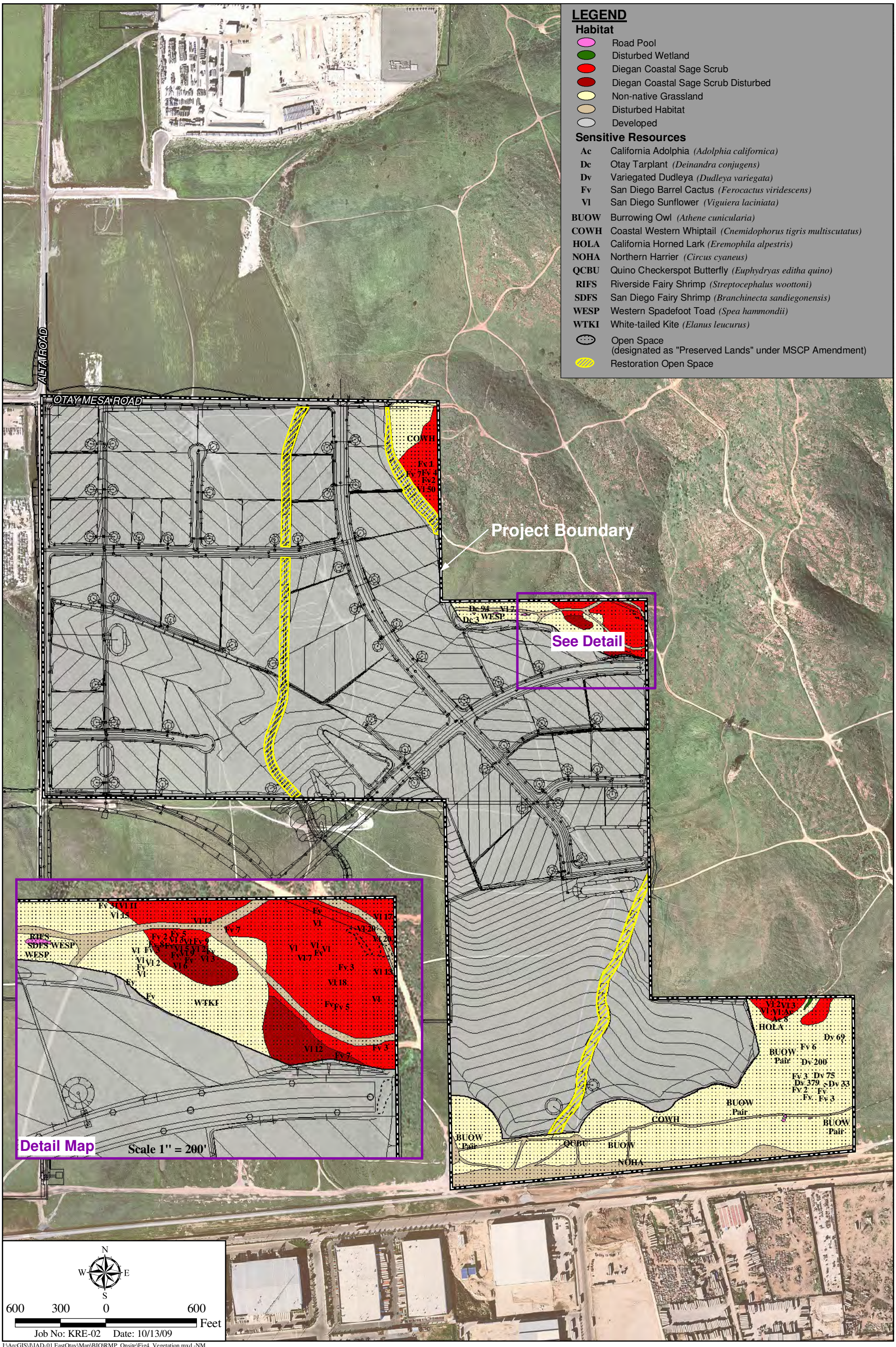
*Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008)
†Upland habitats are rounded to the nearest 0.1 acre, while wetland habitats are rounded to the nearest 0.01; thus, totals reflect rounding
**Approximately 2.0 acres will be impacted by the project and restored to grassland habitat
††This total does not include the approximately 3.6 acres that will be restored to riparian scrub/floodplain scrub and upland habitat on site

3.1.1 Disturbed Wetland

This community is dominated almost exclusively by exotic wetland species within areas that have undergone periodic disturbances. Characteristic species include cocklebur (*Xanthium strumarium*), curly dock (*Rumex crispus*), and tamarisk (*Tamarix* sp.). Disturbed wetland occurs within a drainage in the southeastern portion of the BOS. This is a low quality habitat dominated by non-native species.

3.1.2 Diegan Coastal Sage Scrub (including disturbed)

Coastal sage scrub is 1 of the 2 major shrub types that occur in California. This habitat type occupies xeric sites characterized by shallow soils. Sage scrub is dominated by subshrubs whose leaves abscise during drought. The Diegan coastal sage scrub within the BOS supports several plant species including California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), coyote brush (*Baccharis pilularis*), laurel sumac (*Malosma laurina*), San Diego sunflower, San Diego barrel cactus, and various flowering annuals. Diegan coastal sage scrub occurs in patches on 3 hillsides within the BOS. This habitat is of moderate to high quality though it has been disturbed by roads.



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Vegetation and Sensitive Species

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HELIX

Figure 4

3.1.3 Non-native Grassland

Non-native grassland areas may have supported native grassland in the past, but have been overrun by exotic, introduced annuals. The flora of non-native grasslands includes a dense to sparse cover of introduced grasses and often numerous species of showy-flowered, native, annual forbs (Holland 1986). Characteristic species of the non-native grassland within the BOS include non-native species such as oats (*Avena* spp.), red brome (*Bromus madritensis* ssp. *rubens*), ripgut (*Bromus diandrus*), ryegrass (*Lolium* sp.), and mustard (*Brassica* sp.); as well as native forbs including blue dicks (*Dichelostemma capitatum*), blue-eyed grass (*Sisyrinchium bellum*), and shooting star (*Dodecatheon clevelandii* ssp. *clevelandii*). This habitat is of moderate quality, primarily supporting non-native grasses and mustard, but exhibiting a more diverse native annual plant component in years with sufficient rainfall.

3.1.4 Disturbed Habitat

Disturbed habitat supports either no vegetation or a cover of non-native weedy species that are adapted to a regime of frequent disturbance. Within the BOS, disturbed habitat consists of dirt roads used by OHV and the Border Patrol. It is low quality habitat. Approximately 6.4 acres of disturbed habitat will be revegetated to grassland habitat as part of project mitigation (HELIX 2010c).

3.2 PLANT SPECIES

3.2.1 Plant Species Present and Correlation with Habitat On Site

A total of 98 plant species were observed on the project site during the 2000 and 2005 rare plant surveys as well as during other biological surveys (Appendix A).

3.2.2 Rare, Threatened, or Endangered Plant Species Present or Likely to Occur

Seven (7) sensitive plant species were observed during biological surveys on the project site, including 1 federally listed threatened and state listed endangered species (Otay tarplant [*Deinandra conjugens*]). All 7 species observed are considered sensitive by the California Native Plant Society (CNPS) and County: Otay tarplant, California adolphia (*Adolphia californica*), San Diego barrel cactus, San Diego marsh-elder, variegated dudleya (*Dudleya variegata*), San Diego sunflower, and small-flowered morning glory, and are further discussed below. Of these, 5 species were observed within the BOS: Otay tarplant, California adolphia, San Diego barrel cactus, San Diego sunflower, and variegated dudleya (Figure 4). A list of sensitive plant species with potential to occur within the BOS is provided in Appendix B.

Otay tarplant (*Deinandra conjugens*)
Listing: FT/SE; CNPS List 1B.1; MSCP Narrow Endemic (NE); County Group A
Distribution: Southern San Diego County and northwestern Baja California, Mexico (Baja). In San Diego County, occurs in scattered localities from the Sweetwater Reservoir to the Mexican border.
Habitat: Clay soils in coastal sage scrub; valley and foothill grasslands
Status on site: Approximately 97 individuals observed in 2 patches in the northeastern portion of the site in 2000; however, no individuals detected during the rare plant survey in 2005
MSCP Management Requirements: Area specific management directives must include specific measures for monitoring of populations, adaptive management of preserved populations (taking into consideration the extreme population fluctuations and from year to year), and specific measures to protect against detrimental edge effects to this species

California adolphia (*Adolphia californica*)
Listing: --/--; CNPS List 2.1; County Group B
Distribution: Below 1,000 feet AMSL in elevation in western San Diego County and northwestern Baja
Habitat: Clay soils in dry canyons and washes in coastal sage scrub and chaparral
Status on site: Four (4) individuals observed in non-native grassland in the north-central portion of the site and 3 individuals observed in coastal sage scrub in the southeastern portion of the site
MSCP Management Requirements: Area specific management directives have not been established for this species

San Diego barrel cactus (*Ferocactus viridescens*)
Listing: --/--; CNPS List 2.1; County Group B
Distribution: San Diego County and Baja
Habitat: Dry slopes in coastal sage scrub
Status on site: Patches ranging in size from 1 to 27 individuals scattered within coastal sage scrub in the eastern portion of the site with a total of 193 individuals
MSCP Management Requirements: Area specific management directives must include measures to protect this species from edge effects and unauthorized collection. Directives should also include appropriate fire management/control practices to protect against a too frequent fire cycle.

San Diego marsh-elder (*Iva hayesiana*)
Listing: --/--; CNPS List 2.2; County Group B
Distribution: San Diego County and Baja
Habitat: Low-lying, moist, or alkaline places along coast; has been reported along intermittent streams
Status on site: Approximately 138 individuals observed along a drainage in the northern-central portion of the site
MSCP Management Requirements: Area specific management directives have not been established for this species

Variegated dudleya (*Dudleya variegata*)
Listing: --/--; CNPS List 1B.2; MSCP Narrow Endemic; County Group A
Distribution: San Diego and Baja
Habitat: Valley and foothill grassland, chaparral, coastal scrub, cismontane woodland, and vernal pools below 1,800 feet AMSL
Status on site: Approximately 756 individuals found within non-native grassland in the southeastern portion of the site
MSCP Management Requirements: Area specific management directives must include species-specific monitoring and specific measures to protect against detrimental edge effects to this species, including effects caused by recreational activities. Some populations now occur within a Major Amendment Area (Otay Mountain), and at the time permit amendments are proposed, strategies to provide protection for this species within the Amendment Area must be included.

San Diego sunflower (*Viguiera laciniata*)
Listing: --/--; CNPS List 4.2; County Group D
Distribution: San Diego County and Baja
Habitat: Diegan coastal sage scrub
Status on site: Approximately 252 individuals found in scattered patches throughout coastal sage scrub habitat and non-native grassland in the eastern portion of the site
MSCP Management Requirements: Area specific management directives have not been established for this species

Small-flowered morning glory (*Convolvulus simulans*)
Listing: --/--; CNPS List 4.2; County Group D
Distribution: Southern and central California
Habitat: Diegan coastal sage scrub and grassland
Status on site: Approximately 15 individuals found in non-native grassland in the northwestern portion of the site
MSCP Management Requirements: Area specific management directives have not been established for this species

3.2.3 Non-native and/or Invasive Plant Species

Several non-native grasses and forbs occur within the project area and BOS, and are identified in Appendix A. The species posing the greatest management issue are mustard and fennel (*Foeniculum vulgare*).

3.3 WILDLIFE SPECIES

3.3.1 Wildlife Species Present and Correlation with Habitat on Site

A total of 55 animal species, including 18 invertebrates, 1 amphibian, 4 reptiles, 29 birds, and 3 mammals, were observed/detected on the project site since 2000 and are included in Appendix C. All animal species were identified by direct observation or vocalizations, the presence of scat and/or tracks, or other signs.

3.3.2 Rare, Threatened, or Endangered Wildlife

A total of 11 sensitive animal species have been observed/detected on site, of which 9 were detected in the BOS (Figure 4), including 3 federally listed endangered species: QCB, San Diego fairy shrimp, and Riverside fairy shrimp. Additionally, the project site is within the territory of a golden eagle pair. Six (6) animal species observed/detected are listed as a State Species of Special Concern (SSC): western spadefoot, burrowing owl, California horned lark, loggerhead shrike, northern harrier, and grasshopper sparrow. County sensitive species (coastal whiptail and white-tailed kite) also occur within the project site.

A list of potentially occurring sensitive animal species is included in Appendix D. An explanation of status codes for both plant and animal species sensitivity status is presented in Appendix E.

San Diego fairy shrimp (*Branchinecta sandiegonensis*)
Listing: FE/--; MSCP NE
Distribution: San Diego County
Habitat: Seasonal pools that occur in tectonic swales or earth slump basins and other areas of shallow and standing water, often in patches of grassland and agriculture interspersed in coastal sage scrub and chaparral
Status on site: Detected in 2 road pools in the northern and northeastern portions of the site during 2005 and 2006 surveys (Figure 4)
MSCP Management Requirements: Area specific management directives must include specific measures to protect against detrimental edge effects to this species.

Riverside fairy shrimp (*Streptocephalus woottoni*)
Listing: FE/--; MSCP NE
Distribution: Currently known from vernal pools and other ephemeral basins in Riverside, Orange, and San Diego counties; northern Baja
Habitat: Typically deep vernal pools and seasonal wetlands at least 30 cm deep (Simovich 1990)
Status on site: Detected in 2 road pools in the northern and northeastern portions of the site during 2005 and 2006 surveys (Figure 4)
MSCP Management Requirements: Area specific management directives must include specific measures to protect against detrimental edge effects to this species.

Quino checkerspot butterfly (*Euphydryas editha quino*)
Listing: FE/--
Distribution: Fifty years ago, this species was described as one of the most common butterflies in the county (Murphy 1990). Currently, populations are known to exist only as several (probably isolated) colonies in southwestern Riverside County, extreme northern San Diego County, southern San Diego County, and northern Baja.
Habitat: Generally occurs in grasslands and open sage scrub, particularly where larval host plants, including dwarf plantain (*Plantago erecta*), white snapdragon (*Antirrhinum coulterianum*), or purple owl's clover (*Castilleja exserta*), are abundant
Status on site: No QCB detected on site during 2005 or 2006 protocol surveys; however, 3 individuals reported in 2000 within non-native grassland in the southern portion of the site
MSCP Management Requirements: Area specific management directives have not been established for this species

Western spadefoot (*Spea hammondii*)
Listing: --/SSC
Distribution: Throughout the Central Valley and San Francisco Bay area south along the coast to northwestern Baja California
Habitat: Occurs in open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas. Requires temporary pools for breeding and friable soils for burrowing. Generally excluded from areas with bullfrogs (*Rana catesbiana*) or crayfish (*Procambarus* sp.).
Status on site: Observed in 5 road pools in the northeastern portion of the site
MSCP Management Requirements: Area specific management directives have not been established for this species

Coastal western whiptail (*Cnemidophorus tigris multiscutatus*)
Listing: --/--
Distribution: Ventura County south in cismontane California to south-central Baja
Habitat: Open coastal sage scrub, chaparral, and woodlands. Frequently found along the edges of dirt roads traversing its habitats. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter, and an abundance of invertebrate prey, particularly termites (*Reticulitermes* sp.).
Status on site: One (1) individual was observed in the southeastern portion of the site and 1 in the northeastern corner. Likely occurs throughout the coastal sage scrub areas on site.
MSCP Management Requirements: Area specific management directives have not been established for this species

Burrowing owl (*Athene cunicularia*)
Listing: --/SSC (burrow sites); MSCP NE; MSCP Covered
Distribution: Lower British Columbia to Manitoba, Canada; central and western U.S. south to northern Mexico and Baja
Habitat: Open areas such as grasslands, pastures, coastal dunes, desert scrub, and agriculture fields edges
Status on site: Nine (9) individual owls and at least 1 active burrow were mapped on site (largely in the southern portion) during focused surveys in 2000. A pair with young were observed along Alta Road in the northwestern portion in 2004, 2 nesting pairs were observed in the southeastern portion, a pair was observed adjacent to the auction lot just off site to the west, and a pair and juvenile were observed south of the auction lot off site to the west. In 2006, 8 and possibly 9 pairs were observed along the southern and western edges of the project boundary. Four (4) pairs had burrows immediately off site and are assumed to use at least a portion of the site as their territory. No owls were observed in the central and eastern portions of the site during multiple surveys.
MSCP Management Requirements: Area specific management directives must include: (1) enhancement of known, historical, and potential burrowing owl habitat and management for ground squirrels (the primary excavator of burrowing owl burrows), and (2) monitoring of burrowing owl nest sites to determine use and nesting success; (3) predator control; and establishing a 300 foot wide impact avoidance area around occupied burrows.

California horned lark (*Eremophila alpestris actia*)
Listing: --/SSC
Distribution: Coastal slopes and lowlands from Sonoma County to northern Baja
Habitat: Sandy beaches, agricultural fields, grassland, and open areas
Status on site: Two (2) individuals were observed in non-native grassland in southeastern portion of site
MSCP Management Requirements: Area specific management directives have not been established for this species

Loggerhead shrike (*Lanius ludovicianus*)
Listing: --/SSC
Distribution: Widespread but declining throughout North America; winters in Central America
Habitat: Open habitats including grasslands, shrublands, and ruderal areas with adequate perching locations
Status on site: Two (2) individuals observed within non-native grassland in 2005; however, 8 individuals and 1 active nest were observed in 2000. Observed throughout lower portions of site in 2006
MSCP Management Requirements: Area specific management directives have not been established for this species

Northern harrier (*Circus cyaneus*)
Listing: --/SSC; MSCP Covered
Distribution: Widespread throughout temperate regions of North America and Eurasia. Winters and migrates throughout California from below sea level in Death Valley to 9,800 feet AMSL. Known breeding areas in San Diego County include Torrey Pines, Tijuana River Valley, and Camp Pendleton.
Habitat: Coastal, salt, and freshwater marshlands; grasslands; prairies
Status on site: Two (2) individuals of undetermined sex were observed on site: 1 within non-native grassland in the central portion of the site and another in non-native grassland along the southern property boundary
MSCP Management Requirements: Area specific management directives must (1) manage agricultural and disturbed lands within 4 miles of nesting habitat to provide foraging habitat, (2) include an impact avoidance area of 900 feet (or maximum possible)

Grasshopper sparrow (*Ammodramus savannarum*)
Listing: --/SSC
Distribution: Occurs from southern Canada through much of Mexico
Habitat: Restricted to grasslands (particularly native) dominated by bunchgrasses (*Nassella* spp.)
Status on site: One (1) individual detected in 2005 within non-native grassland in the central portion of the site. Five (5) individuals observed in 2006 in the lower half of the site
MSCP Management Requirements: Area specific management directives have not been established for this species

White-tailed kite (*Elanus leucurus*)
Listing: --/--
Distribution: Breeds in the Pacific U.S. and winters in South America
Habitat: Nests in riparian or oak woodlands adjacent to grasslands supporting small mammals
Status on site: Observed in non-native grassland near Diegan coastal sage scrub in a portion of the site planned for preservation
MSCP Management Requirements: Area specific management directives have not been established for this species

3.3.3 Non-native and/or Invasive Wildlife

Non-native animal species observed on site include house sparrow (*Passer domesticus*) and European starling (*Sturnus vulgaris*), both of which were introduced to North America in the 19th century (Unitt 2004) and are widespread throughout San Diego County. Neither of these species poses a significant management risk for the BOS.

3.4 OVERALL BIOLOGICAL AND CONSERVATION VALUE

The 47.4-acre BOS supports several sensitive plant and animal species, in addition to preserving the highest quality grassland habitat on the project site as well as the majority of Diegan coastal sage scrub. The BOS in the southeastern corner has been configured to maintain an open space connection with potential open space on the proposed Otay Business Park project to the west. The BOS would preserve 4 known burrowing owl nesting locations as well as approximately 97 Otay tarplant individuals, 756 variegated dudleya individuals, 4 California adolphia individuals, 208 San Diego sunflower individuals, and 121 San Diego barrel cactus individuals. The BOS would also conserve 1 QCB location, and habitat for several other sensitive animal species, including horned lark, northern harrier, and coastal western whiptail. The open space supporting restored riparian scrub/floodplain scrub vegetation will also include a minimum of 276 individuals of San Diego marsh-elder when fully revegetated.

3.5 ENHANCEMENT AND RESTORATION OPPORTUNITIES

As stated above, approximately 47.4 acres of land will be dedicated as open space. Of this, approximately 6.4 acres of disturbed habitat will be restored to grassland or open sage scrub suitable for burrowing owl habitation. This RMP will not take effect until the 3-year maintenance and monitoring period for restoration has been successfully completed for the 6.4-acre grassland restoration area. The Resource Manager is not responsible for carrying out the revegetation efforts.

4.0 CULTURAL RESOURCES DESCRIPTION

4.1 ARCHAEOLOGICAL RESOURCES

As identified in the East Otay Mesa Specific Plan (EOMSP) Cultural Resources Technical Report (Ogden Environmental and Gallegos and Associates 1993) and in a 2002 County

Supplement, the project site was originally included in an archaeological survey of a larger study area for a former sludge processing facility proposed on site. The County Supplement is a compilation of the numerous cultural resource studies conducted on parcels within the East Otay Mesa area since the 1994 adoption of the EOMSP, and provides identification of new and updates to previously identified cultural resources, thus updating the cultural resources information for the entire Specific Plan area. Portions of the property have also been surveyed for other projects, including a cultural resources survey conducted for the proposed SR 11 and East Otay Mesa Port Of Entry (Kyle and Van Wormer 2001). An additional cultural resources study was conducted for the project site by Affinis (2007).

The results of Affinis' study identified 14 archaeological sites totally or partially within the project area and 8 archaeological sites totally or partially within the off-site improvement areas. Because the BOS occurs entirely within the project site, a discussion of off-site resources is not included in this document.

The cultural resource evaluation program assessed the significance of 14 sites located within the project area, of which 3 occur wholly or partially within the BOS: CA-SDI-8076/8079, CA-SDI-8652, and CA-SDI-11,793 (Table 2). Testing was conducted for each of these sites, none of which were considered significant under County Resource Protection Ordinance guidelines (Table 2; County 2007).

Table 2
CULTURAL RESOURCES WITHIN THE BOS

Site Number	Site Description	Previously Tested?	Comments	Significant?
CA-SDI-8076/8079	Lithic scatter	Yes	Originally determined significant; later testing determined site not significant (McDonald et al. 1998)	No
CA-SDI-8652	Lithic scatter	Yes	Originally determined significant; later testing determined site not significant (McDonald et al. 1998)	No
CA-SDI-11,793	Light density lithic scatter with debitage and cores	No	Testing required	No

The 3 sites are classified primarily as lithic scatters. Two (2) of these sites are located within the southern portion of the BOS (CA-SDI-8079 and CA-SDI-8652) and a small portion of the other site (CA-SDI-11,793) overlaps the northeastern BOS. Although none of these sites are considered significant, consultation with a cultural resource professional would be initiated prior to any earthwork in these areas.

4.2 NATIVE AMERICAN CONSULTATION

No evidence of human remains, including those interred outside of formal cemeteries, was discovered during the records search, literature review, or site testing and evaluation. There is no indication that the project site was used by Native Americans for religious, ritual, or other special activities and, therefore, impacts to Native American burial sites are not expected. A consultation has not taken place but will be initiated by the Resource Manager following acceptance of the BOS.

4.3 HISTORICAL RESOURCES

Although historic resources (structures) were evident during the records search and literature review, prior studies indicate that no structures were present during those evaluations. In addition, no structures were encountered during the evaluation of resources for this project.

5.0 MANAGEMENT ELEMENTS AND GOALS

5.1 BIOLOGICAL ELEMENT

5.1.1 Goals

The ultimate goal of this RMP is to detail the methods to preserve and maintain the long-term viability and the functions and values of native habitats within the preserve along with the listed and sensitive species they support. In addition, this RMP establishes the following goals with regard to biological resources:

Vegetation Communities: To preserve 47.4 acres of habitat within the BOS in perpetuity. Within the BOS, habitat will be monitored for: (1) quality, (2) exotic plant control measures will be implemented to prevent or reduce the spread of weeds, (3) OHV activity will be curtailed, and (4) adaptive management will be conducted if necessary following fire or flood events.

Sensitive Species: To ensure the continued existence of all sensitive plant and animal species and/or to facilitate expansion of sensitive plant and animal species within the BOS.

5.1.2 Tasks

The BOS will be visually inspected for changes during bimonthly (every other month) maintenance and monitoring visits, and all observations will be documented. Any substantial changes will be monitored more closely to determine the necessity of additional measures. Such visits shall include the monitoring of the spread of exotic plant species and accumulation of trash/debris. Fences and signs associated BOS also will be inspected and any necessary repairs noted.

Baseline Biological Inventory

The quantity and quality of vegetation communities within the BOS will be documented during the first year of active management. This inventory will incorporate data from the project's biological technical report (HELIX 2010a) with the findings of an initial baseline inventory field survey. These data will allow the Resource Manager to measure habitat changes caused by natural and human effects and to evaluate management efforts during subsequent years.

Upon implementation of this RMP, the Resource Manager will be provided digital files containing the existing vegetation and sensitive resources data, which will be updated following the baseline inventory field survey during the start-up (first year) phase of the RMP. The intent of this update is to document current conditions in the open space areas (including graphic and tabular depictions of habitat acreages), document all species observed (either directly or indirectly by sign such as scat, tracks, etc.) within each identified habitat type, and document the locations of any sensitive plant and animal species.

The baseline inventory update will be conducted during the first year of active management. To optimize the probability of detecting sensitive species reported or expected to occur within the BOS, this survey should be conducted between March and May, when the majority of sensitive plant and animal species are most detectable.

Update Biological Mapping

Vegetation and sensitive species mapping will be updated every 5 years following implementation of this RMP. A site visit should be conducted using updated aerial photography to determine vegetation communities present at the time of the survey. Any observed/detected sensitive species will be added to the biological resources maps of the BOS.

Sensitive Species Monitoring

Preservation of sensitive plant and animal populations within the BOS is one step in achieving the overall long-term conservation of these species. Monitoring of sensitive species is another step in achieving the overall long-term conservation of these species. Sensitive species monitoring will help the Resource Manager identify long- and short-term threats and recommend any necessary protective measures. Sensitive plant and animal monitoring will occur during bimonthly (every other month) management activities, and the locations of any observed/detected sensitive species will be documented and added to the biological resources maps. Adaptive management measures may be required to intervene when either natural or man-made disturbances or effects appear to be adversely influencing a sensitive species.

It is the responsibility of the Resource Manager to evaluate the status of preserved species within the preserve and to institute protective measures if any individual species becomes threatened. Sensitive species population monitoring will vary based on the target species. In each assessment, the Resource Manager will observe and document sensitive species locations and conditions. Monitoring/reporting efforts will include all sensitive species previously documented within the BOS.

Rare Plant Surveys

A rare plant survey will be conducted 2 of every 5 years throughout the BOS during the appropriate survey period for the 5 sensitive plant species observed within the BOS (Table 3). The Habitat Biologist will decide in which years the surveys will be conducted, with the goal of surveying during average or above-average rainfall years. Direct counting will be conducted only for Otay tarplant. Presence/absence surveys will be conducted for the remaining sensitive species observed, with specific attention given to any factors that may be negatively affecting those species (i.e., vandalism, mortality, etc.). In addition, an annual visual assessment of each population of sensitive species will be conducted during a regular maintenance event and will be compared to results from previous years in order to help track overall population trends. Sensitive plant species observed incidentally during maintenance events or other site visits would also be documented.

Table 3
BLOOMING PERIODS/SURVEY SEASON
FOR SENSITIVE PLANT SPECIES WITHIN THE BOS

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Otay tarplant (*Deinandra conjugens*)					X	X						
Variegated dudleya (*Dudleya variegata*)				X	X	X						
San Diego sunflower (*Viguiera laciniata*)		X	X	X	X	X						
California adolphia (*Adolphia californica*)	Survey season is year round, blooms not necessary											
San Diego barrel cactus (*Ferocactus viridescens*)	Survey season is year round, blooms not necessary											

*Blooming periods are from CNPS 2008.

Quino Checkerspot Butterfly Surveys

A 1-day survey for Quino checkerspot butterfly will be conducted 2 out of every 5 years within appropriate habitat in the BOS. Each survey will occur during the peak of the flight season (as determined through coordination with the USFWS) and will concentrate on areas supporting QCB host plants and nectaring resources. The Habitat Biologist will decide in which years the

surveys will be conducted, with the goal of surveying during average or above-average rainfall years. The surveys will only be conducted during protocol-level temperature, cloud-cover, and wind conditions. Any QCB observed incidentally during other surveys will also be documented.

Coastal California Gnatcatcher Surveys

Protocol surveys for coastal California gnatcatcher will be conducted every 5 years during the gnatcatcher breeding season (February 15-August 31) within appropriate habitat in the BOS. Any gnatcatchers observed incidentally during maintenance events or other site visits would also be documented.

Burrowing Owl Surveys

A 1-day assessment/survey for burrowing owl will be conducted every year during the owl breeding season (February 1–August 31) within appropriate habitat in the BOS. If possible, the survey should be conducted during the peak of the breeding season (April 15–July 15). This survey will document all burrowing owl sightings, occupied burrows, young of the year, and burrows with owl sign observed on site, as well as presence/absence of ground squirrels. The surveys may be conducted concurrently with surveys for other sensitive species.

San Diego and Riverside Fairy Shrimp Surveys

Presence/absence surveys for San Diego and Riverside fairy shrimp will be conducted 2 out of every 5 years during the wet season within appropriate habitat in the BOS. The Habitat Biologist will decide in which years the surveys will be conducted.

Exotic Plant Control

The Resource Manager will coordinate with land developers and owners adjacent to the BOS to provide information regarding exotic plant species and to increase the efficiency of exotic plant control programs. A prohibition against the use of exotic plant species with a California Invasive Plant Council (Cal-IPC; 2006) rating of High or Moderate will be implemented for all landscaping efforts.

To accommodate changing growth patterns, weeding will occur as needed at the discretion of the Resource Manager. Weeding will occur by manual or mechanical means; no weed whips or chemical herbicides may be used unless specifically determined to be necessary by the Resource Manager. The Resource Manager is responsible for removal of species rated as High by the California Invasive Plant Council (Cal-IPC) within 2 weeks after discovery. Special attention will be paid to eradicating fennel (*Foeniculum vulgare*) and tamarisk, which can form dense local populations and drastically alter the composition and structure of many plant communities (Cal-IPC 2006). Non-native grasses will not be prioritized for removal unless it is determined by the Resource Manager that they are significantly impacting a sensitive resource. General weeding events will occur twice annually: in January/February and April/May.

If the use of herbicide is deemed necessary, application should be minimal, and may only occur in compliance with all federal and state laws. Use of chemical herbicides should be determined in coordination with the County Department of Environmental Health. All herbicide use will be applied by backpack sprayers or stump painting directly on target weeds and will involve short duration, biodegradable chemicals.

Predator Control

Exotic predators, such as Argentine ants (*Linepithema humile*) have potential to occur on site. The Argentine ant displaces native ants that comprise the principal food source for horned lizards. Although directed surveys are not anticipated, the Resource Manager will note evidence of argentine ants within the wetland areas of the BOS. A moderate tolerance for pest species will be permitted, but if the Resource Manager determines that pest eradication measures (pesticide application) are required, the USFWS and/or CDFG will be contacted to determine the need and appropriate methods, including potentially hiring a licensed pest control advisor. Exotic species control/eradication programs should be implemented at the appropriate time of year depending on the pest species and field conditions, and should be coordinated with efforts on adjacent properties.

Fire and Flood Management

Fire is an important element in the ecology of southern California but can also present potential hazards to habitat within the BOS. Following fire events, vegetation within the BOS will be allowed to recover naturally; however, seeding and/or planting of container stock may be required at the discretion of the Resource Manager. Special attention to weed establishment following fire will be assessed by the Resource Manager.

The drainage within the BOS may flood during heavy rains. Such flooding could damage habitat within the BOS through scour, erosion, sedimentation, and spread of weeds. The Resource Manager will monitor habitat areas disturbed by flooding and implement remedial efforts as needed. Flood-damaged areas should be allowed to recover naturally; however, remedial measures, including erosion control, seeding, and/or planting of container stock, may be required if natural recovery is inadequate or if unstable conditions (e.g., slope undercutting) are created. The Resource Manager will remove any exotic species introduced during flooding events.

Off-highway Vehicle Control

Given that the Border Patrol often traverses the site in vehicles during daily patrols, the Resource Manager will coordinate with the Border Patrol prior to installation of trail/dirt road barriers and signage.

5.1.3 Management Constraints

This RMP follows the regulatory and permitting requirements of the USFWS, CDFG, and County. Although it anticipates measures for most foreseeable contingencies, several external constraints remain. For example, changes in rainfall patterns may affect the populations of sensitive plant and

animal species within the BOS. Likewise, changes in other environmental factors such as air pollution, hazardous waste runoff, and erosion could have detrimental effects on the habitat within the BOS. Moreover, because the BOS is bordered on 1 side by the proposed development, these areas are susceptible to edge effects, including noise, dust, and dumping of trash.

5.1.4 Adaptive Management

If the findings of regularly scheduled habitat or species monitoring reveal that the goals of this RMP are not being met (i.e., loss of 1 or more sensitive species or habitats), an amendment to the plan may be necessary. Any changes to this plan will require approval by the appropriate agency (USFWS, CDFG, and/or the County).

5.2 CULTURAL RESOURCES ELEMENT

As stated above, 3 cultural resource sites have been recorded within the BOS.

5.2.1 Goals

All cultural resource sites located within the BOS must be preserved and maintained as they are discovered. Monitoring and general stewardship measures will be implemented to protect these resources.

5.2.2 Tasks

Monitoring

The cultural sites preserved within the BOS will be monitored during regular site visits to ensure that no natural or human-induced impacts have occurred.

Stewardship

Avoidance is generally the best preserve method for the cultural resources within the BOS; therefore, no signage will be installed drawing attention to any cultural sites within the BOS. Given the low significance of the cultural resources on the site, fencing is not anticipated to be necessary. The resource manager will also be responsible for removing any trash or debris that is found on or around the cultural sites.

5.2.3 Management Constraints

No substantial management constraints are expected that may affect preservation of cultural resources within the BOS.

5.3 OPERATIONS, MAINTENANCE, AND ADMINISTRATION ELEMENT

5.3.1 Goals

Ongoing maintenance and administration, which will be the responsibility of the Resource Manager, will be conducted to ensure no loss of resource quality within the BOS.

5.3.2 Tasks

The general operations, maintenance, and administrative tasks to be conducted by the Resource Manager will include the following tasks.

Annual Monitoring Reports

A letter report will be submitted to the USFWS, CDFG, and County that will summarize the overall condition of vegetation communities and sensitive species in the BOS, propose management tasks for the following year, and discuss results of management activities proposed in the previous report. Submitted annually by the end of January, this letter report will compare the most recent data with those collected in previous years, evaluate sensitive species status and local wildlife corridor use, and outline appropriate remedial measures. Fees for County review will also be included with submittal of the annual report.

The results of all updated vegetation mapping (every fifth year), sensitive plant surveys (2 of every 5 years), and sensitive animal surveys (varies by species) should be included in the appropriate annual letter reports.

Management Plan Review

This RMP will be reviewed every 5 years to determine the need for revisions or updates. Due to changing conditions within the BOS, it may be necessary to revise the tasks outlined in this plan to ensure continued success of the stated goals.

Access Control

To prevent human-induced degradation of the BOS due to illegal occupancy, trespassing (OHV activity), removal of resources, or dumping of trash or debris, the Resource Manager will restrict access to the BOS. Permanent signage will be posted every 500 feet and at locations of unauthorized trails entering the BOS and be maintained by the Resource Manager. All signs will be corrosion-resistant (e.g., steel), measure at minimum 6 by 9 inches in size, be posted on a metal post at least 3 feet above ground level, and provide notice in both Spanish and English that the area is an ecological preserve with trespassing prohibited. The signs will state the following:

Sensitive Environmental Resources
Disturbance Beyond this Point is Restricted by Easement
Contact Information:
County of San Diego Department of Planning and Land Use
Ref. SPA04-006/TM5405RPL

Fencing

The project applicant will install a fence around the project footprint dividing development and the BOS. The fencing will be maintained by the Resource Manager.

Barriers

Along with placement of signage installation, the Resource Manager will install barriers (e.g., K-rails) along the perimeter of the BOS at locations where trails and dirt roads enter and exit the BOS. Barriers will reduce the amount of OHV activity in the BOS.

Additional fencing needs will be identified by the Resource Manager and a fencing plan will be submitted to the County for review prior to installation. Such fencing may be required for:

- Prevention of unauthorized vehicle access;
- Protection of open space boundaries (e.g., along utility easements);
- Prevention of trail formation within the preserve; and/or

Illegal Occupancy

Illegal occupancy is common in open space areas, although this is not anticipated to be an issue on this site because of the open nature of the habitat. The Resource Manager will survey the BOS for evidence of illegal access concurrently with other site management activities and file a report with the Sheriff and the County DPLU, if necessary.

Removal of Resources

Removal of any plants, animals, rocks, minerals, or other natural resources from the BOS is prohibited. The Resource Manager will maintain a log of illegal collecting and may report individuals caught removing natural resources from the BOS to the USFWS, CDFG, County, and/or Sheriff's Office. The Resource Manager may allow and supervise seed collection and plant cuttings as part of revegetation efforts within the preserve and/or in nearby areas. Any such collected plant materials should be limited to that necessary to ensure successful revegetation while not adversely affecting local plant populations.

Maintain Confidentiality of Archaeological Site Locations

Successful management of resources within the BOS will require maintenance of the cultural resource sites. Due to the sensitive nature of these cultural resources, the Resource Manager will maintain records of their locations and ensure that they remain confidential.

Trash Removal and Vandalism Repair

The Resource Manager will also conduct general trash removal within the BOS during regular management site visits. Additionally, damage caused by vandalism will be repaired. Trash removal and vandalism repair will occur as needed during regular bimonthly site visits.

Hazardous Materials Monitoring

The release of hazardous materials such as fuels, oil, vegetation clippings, trash, and landscaping related chemicals (e.g., pesticides and herbicides) has potential to affect the BOS negatively.

Although no specific survey will be conducted, if such hazardous materials are observed within the BOS during regular bimonthly site visits, remedial measures to remove the material will occur.

5.4 PUBLIC USE ELEMENT

The BOS will not have public trails or other facilities. Existing trails will be blocked and/or demarcated with signage to prevent continued use and no additional trails will be installed. The BOS is intended to serve as a habitat preserve and as such is not compatible with many activities. Activities that will be specifically prohibited include:

- Use of herbicides (except to remove non-native species as necessary), pesticides, biocides, fertilizers, or other agricultural chemicals;
- Weed abatement activities for fuel management or other incompatible fire protection activities;
- Use of OHVs and any other motorized vehicles except in the execution of management duties or through coordination with the Border Patrol;
- Grazing or other agricultural activity of any kind;
- Recreational activities including, but not limited to, horseback riding, biking, hunting, or fishing;
- Commercial or industrial uses;
- Construction, reconstruction or placement of any building or other improvement, billboard, or sign;
- Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other material;
- Planting, introduction or dispersal of non-native or exotic plant or animal species;
- Altering the general topography of the BOS, including but not limited to building of roads and flood control work;
- Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by federal, state or local law or by governmental order for (1) emergency fire breaks; (2) maintenance of existing foot trails or roads; (3) prevention or treatment of disease; or (4) required mitigation programs; and
- Manipulating, impounding or altering any natural watercourse, body of water or water circulation on the open space, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

5.5 FIRE MANAGEMENT ELEMENT

No fire management activities (clearing, thinning, mowing, discing, blading, etc.) are planned within the BOS. All such measures to reduce wildfire risk are to occur entirely outside of the BOS.

6.0 RESOURCE MANAGEMENT PLAN SUMMARY AND BUDGET

6.1 OPERATIONS AND BUDGET SUMMARY

Table 4 provides a summary of all management tasks described above and the frequency of each task. The budget for these tasks will be provided in a PAR as an appendix to the final RMP after a Resource Manager is identified.

6.2 EXISTING STAFF AND ADDITIONAL PERSONNEL NEEDS SUMMARY

Staff and personnel needs will be provided in the final RMP after a Resource Manager is identified.

Table 4
MANAGEMENT TASKS

TASK	FREQUENCY
Biological Resources Tasks	
Baseline Inventory	One time
Update Biological Mapping	Every 5 years
Sensitive Plant Species Monitoring	2 out of every 5 years
QCB Surveys	2 out of every 5 years
Fairy Shrimp Surveys	2 out of every 5 years
Burrowing Owl Surveys	Every year
Coastal California Gnatcatcher Surveys	Every 5 years
Exotic Plant Control	As needed; anticipated twice per year
Predator Control	As needed
Fire and Flood Management	As needed
Cultural Resources Tasks	
Monitoring	Bi-Monthly (every other month)
Stewardship	Bi-Monthly (every other month)
Operations, Maintenance, and Administration Tasks	
Monitoring Reports	Annually
Management Plan Review	Every 5 years
Access Control	Bi-Monthly (every other month)
Maintain Confidentiality of Cultural Site Locations	Ongoing
Trash Removal and Vandalism Repair	Bi-Monthly (every other month)
Hazardous Materials Monitoring	Bi-Monthly (every other month)

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APPENDIX A

PLANT SPECIES OBSERVED

Appendix A
PLANT SPECIES OBSERVED – OTAY CROSSINGS COMMERCE PARK

FAMILY	SCIENTIFIC NAME	COMMON NAME	HABITAT‡
DICOTYLEDONES			
Aizoaceae	*Mesembryanthemum nodiflorum**	slender-leaved iceplant	DCSS-D
Amaranthaceae	*Amaranthus* sp.*	tumbleweed	NNG
Anacardiaceae	*Malosma laurina*	laurel sumac	DCSS, DCSS-D
Apiaceae	*Foeniculum vulgare**	fennel	DH, DW
Asteraceae	*Ambrosia psilostachya*	western ragweed	DW
	Artemisia californica	California sagebrush	DCSS, DCSS-D
	Baccharis pilularis	coyote brush	DCSS, DCSS-D, DH
	Baccharis sarothroides	broom baccharis	DCSS, DCSS-D
	*Centaurea melitensis**	star thistle	DH, NNG
	*Conyza canadensis**	horseweed	DH
	*Cynara cardunculus**	cardoon	NNG
	Deinandra conjugens†	Otay tarplant	NNG
	Deinandra fasciculata	fascicled tarplant	DCSS, DCSS-D, NNG
	Filago californica	California filago	NNG
	*Gazania linearis**	gazania	DCSS-D, NNG
	Gnaphalium californicum	California everlasting	DCSS, DCSS-D, NNG
	Grindelia camporum var. *bracteosum*	gum plant	NNG
	*Hedypnois cretica**	Crete hedypnois	NNG
	Helianthus annuus	western sunflower	DCSS, DCSS-D, NNG
	*Hypochaeris glabra**	smooth cat's-ear	NNG
	Isocoma menziesii var. *menziesii*	San Diego goldenbush	DCSS, DCSS-D, NNG
	Iva hayesiana†	San Diego marsh-elder	NNG
	*Lactuca serriola**	wild lettuce	DW
	Lessingia filaginifolia var. *filaginifolia*	California-aster	DCSS-D, NNG
	Osmadenia tenella	osmadenia	NNG
	*Sonchus oleraceus**	common sow thistle	DH, NNG
	Stylocline gnaphaloides	everlasting nest straw	NNG
	Viguiera laciniata†	San Diego County viguiera	DCSS, DCSS-D, NNG
	*Xanthium strumarium**	cocklebur	DW
Boraginaceae	*Cryptantha* sp.	cryptantha	DCSS, DCSS-D
	Plagiobothrys sp.	popcorn flower	DCSS-D, NNG
Brassicaceae	*Brassica nigra**	black mustard	DH, NNG
	Lepidium sp.*	peppergrass	NNG
	Lepidium latifolium	peppergrass	NNG
Cactaceae	*Ferocactus viridescens*†	San Diego barrel cactus	DCSS, DCSS-D, NNG
	Opuntia littoralis	coastal prickly pear	DCSS, DCSS-D
Capparaceae	*Isomeris arborea*	bladderpod	DCSS, DCSS-D

Appendix A (cont.)
PLANT SPECIES OBSERVED – OTAY CROSSINGS COMMERCE PARK

FAMILY	SCIENTIFIC NAME	COMMON NAME	HABITAT‡
DICOTYLEDONES (cont.)			
Caryophyllaceae	*Silene gallica**	common catchfly	DCSS-D, NNG
	*Spergularia bocconii**	sand-spurry	NNG
	Spergularia sp.*	sand-spurry	NNG
Chenopodiaceae	*Atriplex semibaccata**	Australian saltbush	NNG
	Chenopodium sp.*	pigweed	DH, DW, NNG
	Salicornia bigelovii	dwarf glasswort	DW
	*Salsola tragus**	Russian thistle	DH, NNG
Convolvulaceae	*Calystegia macrostegia* ssp. *arida*	finger-leaf morning-glory	DCSS, DCSS-D
	*Convolvulus arvensis**	bindweed	NNG
	Convolvulus simulans†	small-flowered morning glory	NNG
	Crassula connata	pygmy-weed	NNG
Crassulaceae	*Dudleya variegata*†	variegated dudleya	NNG
Euphorbiaceae	*Eremocarpus setigerus*	dove weed	DH, NNG
Fabaceae	*Lotus scoparius* var. *scoparius*	coastal deerweed	DCSS, DCSS-D
	Medicago polymorpha	bur-clover	NNG
	*Medicago sativa**	alfalfa	NNG
Gentianaceae	*Centaurium venustum*	canchalagua	DCSS, DCSS-D
Geraniaceae	*Erodium cicutarium**	red-stem filaree	DH, NNG
	*Erodium moschatum**	green-stem filaree	DH, NNG
Lamiaceae	*Trichostema lanceolatum*	vinegar weed	DCSS, DCSS-D
Malvaceae	*Malva parviflora**	cheeseweed	DH, NNG
Nyctaginaceae	*Mirabilis californica*	wishbone bush	DCSS-D, NNG
Oxalidaceae	*Oxalis pes-caprae**	Bermuda-buttercup	NNG
Plantaginaceae	*Plantago erecta*	dwarf plantain	DCSS-D, NNG
Polygonaceae	*Eriogonum fasciculatum* ssp. *fasciculatum*	California buckwheat	DCSS, DCSS-D, NNG
	Linanthus dianthiflorus	ground pink	DCSS, DCSS-D
	Polygonum sp.	knotweed	DH, NNG
	*Rumex crispus**	curly dock	DW, TS
Portulacaceae	*Calandrinia ciliata*	red maids	DCSS, DCSS-D, NNG
Primulaceae	*Anagallis arvensis**	scarlet pimpernel	NNG
	Dodecatheon clevelandii ssp. *clevelandii*	shooting star	DCSS-D, NNG
Rhamnaceae	*Adolphia californica*†	California adolphia	DCSS
Rubiaceae	*Galium* sp.	bedstraw	DCSS-D
Tamaricaceae	*Tamarix* sp.*	tamarisk	TS
Verbenaceae	*Verbena* sp.	verbena	NNG

Appendix A (cont.)
PLANT SPECIES OBSERVED – OTAY CROSSINGS COMMERCE PARK

FAMILY	SCIENTIFIC NAME	COMMON NAME	HABITAT‡
MONOCOTYLEDONES			
Iridaceae	*Sisyrinchium bellum*	blue-eyed grass	NNG
Juncaceae	*Juncus bufonius*	toad rush	NNG
Liliaceae	*Bloomeria crocea* var. *crocea*	golden star	DCSS-D, NNG
	Brodiaea jolonensis	mesa brodiaea	DCSS-D, NNG
	Chlorogalum pomeridianum	soap plant	DCSS
	Dichelostemma capitatum	blue dicks	DCSS, DCSS-D, NNG
	Zigadenus fremontii	star-lily	NNG
Poaceae	*Avena barbata**	slender wild oat	DCSS, DCSS-D, DH, NNG
	*Avena fatua**	wild oat	DCSS-D, DH, NNG
	*Bromus diandrus**	common ripgut grass	DCSS, DCSS-D, NNG, DH
	*Bromus hordeaceus**	soft chess	NNG
	Bromus madritensis ssp. *rubens**	foxtail chess	DCSS, DCSS-D, NNG, DH
	*Gastridium ventricosum**	nit grass	NNG
	Hordeum marinum ssp. *gussoneanum**	Mediterranean barley	DH, NNG
	Hordeum sp.	barley	NNG
	*Lamarckia aurea**	goldentop	DH
	*Lolium multiflorum**	Italian ryegrass	NNG
	Lolium sp.*	ryegrass	NNG, DH
	Nassella pulchra	purple needlegrass	NNG
	Nassella sp.	needlegrass	NNG
	Phalaris sp.*	canary grass	DW
	*Polypogon monspeliensis**	annual beard grass	DW, DH, NNG
	*Schismus barbatus**	Mediterranean grass	DH, NNG
	*Vulpia myuros**	fescue	DCSS, DCSS-D, DH, NNG
Typhaceae	*Typha* sp.	cattail	DW, TS
PTERIDOPHYTA			
Selaginellaceae	*Selaginella cinerascens*	ashy spike-moss	DCSS

*Non-native species
†Sensitive species
‡Habitat acronyms: DCSS=Diegan coastal sage scrub, DCSS-D=disturbed Diegan coastal sage scrub, DH=disturbed habitat, DW=disturbed wetland, NNG=non-native grassland, TS=tamarisk shrub

APPENDIX B

SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

Appendix B
SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR
OTAY CROSSINGS COMMERCE PARK

SPECIES	LISTING OR SENSITIVITY*	POTENTIAL TO OCCUR
California Orcutt grass (*Orcuttia californica*)	FE/SE CNPS List 1B.1 County Group A MSCP Covered	Low. Vernal pool species. Would have been observed if present.
Otay Mesa mint (*Pogogyne nudiuscula*)	FE/SE CNPS List 1B.1 County Group A MSCP Covered	Low. Otay Mesa vernal pool species. Would have been observed if present.
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	FE/SE CNPS List 1B.1 County Group A MSCP Covered	Low. Perennial herb occurring in coastal scrub, grassland, marsh, vernal pools, and in mesic soils along the coast. Range includes Riverside and San Diego counties and Baja. Would have been observed if present.
Willowy monardella (*Monardella linoides* ssp. *viminea*)	FE/SE CNPS 1B.1 CA Endemic MSCP NE County Group A	Low. Perennial herb typically associated with drainages in chaparral or coastal sage scrub. Would have been observed if present.
San Diego thorn-mint (*Acanthomintha ilicifolia*)	FT/SE CNPS List 1B.1 MSCP NE County Group A	Low. Occurs on clay lenses in open areas within grasslands. Would have been observed if present.
San Diego ambrosia (*Ambrosia pumila*)	FE/-- CNPS List 1B.1 MSCP NE County Group A	Low. Occurs in disturbed areas within chaparral, coastal sage scrub, and grasslands. Would have been observed if present.
Spreading navarretia (*Navarretia fossalis*)	FT/-- CNPS List 1B.1 County Group A	Low to moderate. Vernal pool species with limited number of populations. Would likely have been observed if present, although likelihood of detection varies from year to year.
Dehesa nolina (*Nolina interrata*)	--/SE CNPS List 1B.1 MSCP NE County Group A	Low. Occurs in mafic chaparral such as gabbroic conditions, none of which occurs on site. Would have been observed if present.
Dunn's mariposa lily (*Calochortus dunnii*)	--/SR CNPS List 1B.2 MSCP NE County Group A	Low. Typically associated with gabbro soils and chaparral habitats. The site is below elevation range of this species and lacks appropriate habitat.

Appendix B (cont.) SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**LISTING OR SENSITIVITY***	**POTENTIAL TO OCCUR**
Snake cholla (*Opuntia parryi* var. *serpentina*)	--/-- CNPS List 1B.1 MSCP NE County Group A	Low. Chaparral and coastal sage scrub from Point Loma south to Chula Vista and Baja. Would have been observed if present.
Heart-leaved pitcher sage (*Lepechinia cardiophylla*)	--/-- CNPS List 1B.2 MSCP NE County Group A	Low. Occurs in thick chaparral and known in California from only 10 sites. Would have been observed if present.
Gander's pitcher sage (*Lepechinia ganderi*)	--/-- CNPS List 1B.3 MSCP NE County Group A	Low. Occurs in chaparral understory and only known from a few inland sites. Would have been observed if present.
Parry's tetracoccus (*Tetracoccus dioicus*)	--/-- CNPS List 1B.2 MSCP Covered County Group A	Low in coastal sage scrub. Would have been observed if present.
Tecate cypress (*Cupressus forbesii*)	--/-- CNPS List 1B.1 County Group A	Low. Evergreen tree occurring in southern mixed chaparral and southern interior cypress forest. Appropriate habitat absent. Would have been observed if present.
San Diego goldenstar (*Muilla clevelandii*)	--/-- CNPS List 1B.1 County Group A	Moderate. Occurs in coastal sage scrub east of the site. Would have been observed during rare plant surveys if present on site.
Nuttall's scrub oak (*Quercus dumosa*)	--/-- CNPS List 1B.1 County Group A	Low. Shrub occurring in chaparral and coastal sage scrub. Would have been observed if present.
Summer holly (*Comarostaphylos diversifolia* ssp. *diversifolia*)	--/-- CNPS List 1B.2 County Group A	Low. Large shrub occurring in chaparral. Habitat absent from the site. Would have been observed if present.
Orcutt's brodiaea (*Brodiaea orcuttii*)	--/-- CNPS List 1B.1 County Group A	Low. Occurs in vernal pools and ephemeral streams and seeps in Riverside and San Bernardino counties south to Baja. Would have been observed if present.
Shaw's agave (*Agave shawii*)	--/-- CNPS List 2.1 MSCP NE County Group B	Low. Occurs in coastal sage scrub and coastal bluff scrub. Would have been detected if present.
Palmer's goldenbush (*Ericameria palmeri* ssp. *palmeri*)	--/-- CNPS List 2.2 MSCP NE County Group B	Low to moderate. Evergreen shrub occurring in coastal sage scrub. Would have been observed if present.

Appendix B (cont.) SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**LISTING OR SENSITIVITY***	**POTENTIAL TO OCCUR**
Orcutt's bird's-beak (*Cordylanthus orcuttianus*)	--/-- CNPS List 2.1 R-E-D 3-3-1 MSCP Covered County Group B	Low. Annual species occurring in coastal sage scrub. Would have been observed if present.
Orcutt's dudleya (*Dudleya attenuata* ssp. *orcuttii*)	--/-- CNPS List 2.1 County Group B	Low. Coastal bluff scrub, chaparral, and coastal sage scrub. Would have been observed if present.
Wart-stemmed ceanothus (*Ceanothus verrucosus*)	--/-- CNPS List 2.2 MSCP Covered County Group B	Low. Shrub occurring in chaparral. Would have been observed if present.
Golden-spined cereus (*Bergerocactus emoryi*)	--/-- CNPS List 2.2 County Group B	Low. Stem succulent occurring in sandy substrate in chaparral and coastal scrub. Known to occur in Otay Mesa area. Would have been observed if present.
Munz's sage (*Salvia munzii*)	--/-- CNPS List 2.2 County Group B	Moderate. South foothill and coastal region of San Diego County below 1,500 feet amsl. Known off site to north. Would have been observed if present.
Little mousetail (*Myosurus minimus* ssp. *apus*)	--/-- CNPS List 3.1 County Group A	Low to moderate. Inconspicuous species of vernal pools. Would have been observed if present.
Short-lobed broomrape (*Orobanche parishii* ssp. *brachyloba*)	--/-- CNPS List 4.2 County Group A	Low. Parasitic herb occurring in sandy substrate in coastal bluff scrub and dunes. Known populations in Channel Islands, San Luis Obispo, and San Diego counties as well as Baja. Appropriate habitat does not occur on site.
Palmer's grapplinghook (*Harpagonella palmeri*)	--/-- CNPS List 4.2 County Group B	Low in chaparral and grassland with clay soil. Would have been observed if present.
Graceful tarplant (*Holocarpha virgata* ssp. *elongata*)	--/-- CNPS List 4.2 CA Endemic County Group D	Moderate. Annual species of chaparral, cismontane woodlands, coastal sage scrub, and grasslands.
Western dichondra (*Dichondra occidentalis*)	--/-- CNPS List 4.2 County Group D	Moderate. Occurs in coastal sage scrub northeast of the site.

*Refer to Appendix E for a listing and explanation of status and sensitivity codes

APPENDIX C

ANIMAL SPECIES OBSERVED OR DETECTED

Appendix C

ANIMAL SPECIES OBSERVED – OTAY CROSSINGS COMMERCE PARK

SCIENTIFIC NAME	COMMON NAME
INVERTEBRATES	
Anthocharis sara	Sara orangetip
Apodemia mormo virgulti	Behr's metalmark
Branchinecta sandiegonensis†	San Diego fairy shrimp
Brephidium exilis	western pygmy blue
Coenonympha californica	common California ringlet
Erynnis funeralis	funereal duskywing
Euphydryas editha quino†	Quino checkerspot butterfly
Glaucopsyche lygdamus australis	southern blue
Junonia coenia	buckeye
Papilio eurymedon	pale swallowtail
Papilio zelicaon	Anise swallowtail
Pieris rapae	cabbage butterfly
Plebejus acmon	Acmon blue
Pontia protodice	common white
Pyrgus albescens	common checkered skipper
Streptocephalus woottoni†	Riverside fairy shrimp
Vanessa annabella	west coast lady
Vanessa cardui	painted lady
VERTEBRATES	
Amphibian	
Spea hammondii†	western spadefoot
Reptiles	
Cnemidophorus hyperythrus beldingi	orange throated whiptail
Cnemidophorus tigris multiscutatus†	coastal western whiptail
Sceloporus occidentalis	western fence lizard
Thamnophis hammondii	two-striped garter snake
Birds	
Agelaius phoenceus	red-wing blackbird
Ammodramus savannarum†	grasshopper sparrow
Athene cunicularia†	burrowing owl
Buteo jamaicensis	red-tailed hawk
Carduelis psaltria	lesser goldfinch
Carduelis tristis	American goldfinch

Appendix C (cont.)
ANIMAL SPECIES OBSERVED – OTAY CROSSINGS COMMERCE PARK

SCIENTIFIC NAME	COMMON NAME
VERTEBRATES (cont.)	
Birds (cont.)	
Carpodacus mexicanus	house finch
Charadrius vociferus	killdeer
Chordeiles acutipennis	lesser nighthawk
Circus cyaneus†	northern harrier
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Elanus leucurus†	white-tailed kite
Eremophila alpestris actia†	California horned lark
Falco sparverius	American kestrel
Hirundo pyrrhonota	cliff swallow
Icterus bullockii	Bullock's oriole
Lanius ludovicianus†	loggerhead shrike
Mimus polyglottos	northern mockingbird
Passer domesiticus	house sparrow
Passerina caerulea	blue grosbeak
Pipilo crissalis	California towhee
Sayornis nigricans	black phoebe
Sturnella neglecta	western meadowlark
Sturnus vulgaris	European starling
Tyrannus verticalis	western kingbird
Tyrannus vociferans	Cassin's kingbird
Zenaida macroura	mourning dove
Zonotrichia leucophyrys	white-crowned sparrow
Mammals	
Spermophilus beecheyi	California ground squirrel
Sylvilagus audubonii	desert cottontail
Thomomys bottae	Botta's pocket gopher

†Sensitive species

APPENDIX D

SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

Appendix D SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR OTAY CROSSINGS COMMERCE PARK		
SPECIES	**LISTING OR SENSITIVITY***	**POTENTIAL TO OCCUR**
INVERTEBRATES		
Harbinson dun skipper (*Euphyes vestris harbisoni*)	--/-- MSCP Covered	Low. Host plant San Diego sedge (*Carex spissa*) was not observed on site.
Thorne's hairstreak butterfly (*Mitoura thornei*)	--/-- MSCP Covered	Low. Closely associated with food plant Tecate cypress (*Cupressus forbesii*) and closed cone forest habitats. Appropriate habitat not present within or near the site.
Hermes copper (*Lycaena hermes*)	--/--	Low. Host plant spiny redberry (*Rhamnus crocea*) was not observed.
VERTEBRATES		
Reptiles/Amphibians		
Arroyo southwestern toad (*Bufo californicus*)	FE/SSC MSCP Covered	Low. Found in washes, streams, and arroyos in semiarid areas. Prefer shallow pools and open, sandy stream terraces or sand bars with cotton-woods, willows, or sycamores. Appropriate habitat absent.
Orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*)	--/SSC, Fully Protected MSCP Covered	High. Prefers washes and other sandy areas with patches of brush and rocks for cover. Habitats include low-elevation coastal sage scrub, chaparral, and valley-foothill hardwood forests.
Coast horned lizard (*Phrynosoma coronatum*)	--/SSC, Fully Protected	Moderate to high. Prefers friable, rocky, or shallow soils in coastal sage scrub and chaparral in arid and semi-arid climates.
Coastal rosy boa (*Lichanura trivirgata roseofusca*)	--/SSC	Low to moderate. Generally occurs in coastal sage scrub, particularly where rock outcrops are common. Marginally suitable habitat occurs on site.
Silvery legless lizard (*Anniella nigra argentea*)	--/SSC	Low. Burrows in loose soils, sandy washes, or leaf litter. Occurs in moist habitats of chaparral, pine, and oak woodlands, and riparian streamside growth. Appropriate habitat limited on site.
Red-diamond rattlesnake (*Crotalus exsul*)	--/SSC	Moderate. Common snake in coastal sage scrub.
Coronado Island skink (*Eumeces skiltonianus interparietalis*)	--/SSC	Moderate. Prefers coastal sage scrub, grassland, and ruderal habitats.
Coast western patch-nosed snake (*Salvadora hexalepis virgultea*)	--/SSC	Moderate. Preferred food source (whiptails) occur in coastal sage scrub on site.

Appendix D (cont.) SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**LISTING OR SENSITIVITY***	**POTENTIAL TO OCCUR**
VERTEBRATES (cont.)		
Birds		
Peregrine falcon (*Falco peregrinus*)	FE/SE MSCP Covered	Low. Rare fall and winter visitor. Prefers various coastal habitats for foraging and breeding.
Least Bell's vireo (*Vireo bellii pusillus*)	FE/SE MSCP Covered	Low. Prefers riparian habitats. Although species has very high sensitivity, surveys not recommended based on site's low habitat quality and quantity. Would have been observed if present.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE/-- MSCP Covered	Low. Prefers riparian habitats. On-site habitat not extensive enough or appropriate as breeding habitat. May occur as a migrant. Would have been observed if present.
Coastal California gnatcatcher (*Polioptila californica californica*)	FT/SSC MSCP Covered	Low. Not observed during focused surveys within suitable habitat on site. Although reported east of the project site, would likely have been observed if present.
Cooper's hawk (*Accipiter cooperii*)	--/SSC MSCP Covered	Low. Would have been observed if present. Could occur in riparian habitats within the site and forage on site.
Tricolored blackbird (*Agelaius tricolor*)	--/SSC	Low. Occurs mostly in coastal lowland grasslands and wetlands. Would have been observed if present.
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)	--/SSC	Moderate. Occurs within sage scrub and grassland habitats.
Bell's sage sparrow (*Amphispiza belli belli*)	--/SSC	Moderate. Occurs in sunny, dry stands of coastal sage scrub and chaparral. Observed off site to the east.
San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegonensis*)	--/SSC	Low. Occurs in large stands of *Opuntia* and other cactus species. Preferred habitat not present. Would have been observed if present.
Prairie falcon (*Falco mexicanus*)	--/SSC	Moderate. Has been observed in project vicinity.
Long-billed curlew (*Numenius amaericanus*)	--/SSC	Moderate. Occasionally observed in wet areas in project vicinity.
Mammals		
Pacific pocket mouse (*Perognathus longimembris pacificus*)	FE/SSC	Low. Coastal sage scrub, but more often in sandy washes. Known currently from one location in Orange County and one on Camp Pendleton. Site outside of species' known range.

Appendix D (cont.) SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
SPECIES	**LISTING OR SENSITIVITY***	**POTENTIAL TO OCCUR**
VERTEBRATES (cont.)		
Mammals (cont.)		
Pallid bat (*Antrozous pallidus pacificus*)	--/SSC	Low. Roosts in caves, mines, bridges, crevices, and abandoned buildings and trees. Appropriate roosting habitat absent. Could forage throughout the site, but few potential roosting sites exist. Focused surveys not warranted.
Dulzura California pocket mouse (*Chaetodipus californicus femoralis*)	--/SSC	Low. Dense chaparral, but occasionally other shrublands. Appropriate habitat absent.
Spotted bat (*Euderma maculatum*)	--/SSC	Low likelihood to roost on site (prefers cliffs) but could forage on site. Occasionally enters buildings or caves and occurs in arid country.
Yuma myotis (*Myotis yumanensis*)	--/--	Low. Arid areas. Roosts in buildings, mines, caves, and crevices, which are absent.
San Diego pocket mouse (*Chaetodipus fallax fallax*)	--/SSC	Low. Prefers open, sandy land with weeds, which does occur on site. Trapping necessary for detection but not warranted due to the species' low sensitivity.
Greater western mastiff bat (*Eumops perotis californicus*)	--/SSC	Low. Appropriate habitat absent. In chaparral and oak woodland with coast live oaks and in arid, rocky areas. Roosts on or in buildings, crevices in cliffs, and in trees and tunnels.
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	--/SSC	High. Likely occurs on site.
San Diego desert woodrat (*Neotoma lepida intermedia*)	--/SSC	Moderate. Nests are usually observed if present but may have escaped view in thicker, vegetated areas. Trapping necessary for detection but not warranted due to the species' low sensitivity.
Southern grasshopper mouse (*Onychomys torridus ramona*)	--/SSC	Moderate. Species not restrictive in its habitat requirements. Trapping necessary for detection but not warranted due to low sensitivity.
Townsend's big-eared bat (*Plecotus townsendii pallescens*)	--/SSC	Low. Roosts in caves, mine tunnels, and buildings. Appropriate habitat absent.

*Refer to Appendix E for a listing and explanation of status and sensitivity codes

APPENDIX E

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

Appendix E
EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

FEDERAL, STATE, AND LOCAL CODES

U.S. Fish and Wildlife Service (USFWS)

FE Federally listed endangered
FT Federally listed threatened

California Department of Fish and Game (CDFG)

SE State listed endangered
ST State listed threatened
SR State listed rare
SSC State species of special concern
Fully Protected Fully Protected species may not be taken or possessed without a permit from the Fish and Game Commission and/or CDFG.

County of San Diego

Plant sensitivity:

Group A Plants rare, threatened or endangered in California or elsewhere
Group B Plants rare, threatened or endangered in California but more common elsewhere
Group C Plants that may be quite rare, but more information is needed to determine rarity status
Group D Plants of limited distribution and are uncommon, but not presently rare or endangered

OTHER CODES AND ACRONYMS

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which the County has take authorization within MSCP area.

MSCP Narrow Endemic (NE) Species

Some native species, primarily plants with restricted geographic distributions, soil affinities, and/or habitats, are referred to as narrow endemic species. For vernal pools and identified narrow endemic species, jurisdictions will specify measures in their respective subarea plans to ensure that impacts to these resources are avoided to the maximum extent practicable.

EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

California Native Plant Society (CNPS) Codes

Lists

1A = Presumed extinct.

1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.

2 = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.

3 = Distribution, endangerment, ecology, and/or taxonomic information needed. Some eligible for state listing.

4 = A watch list for species of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.

List/Threat Code Extensions

.1 = Seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat)

.2 = Fairly endangered in California (20 to 80 percent occurrences threatened)

.3 = Not very endangered in California (less than 20 percent of occurrences threatened, or no current threats known)

A CA Endemic entry corresponds to those taxa that only occur in California.

All List 1A (presumed extinct in California) and some List 3 (need more information; a review list) plants lacking threat information receive no threat code extension. Threat Code guidelines represent only a starting point in threat level assessment. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are considered in setting the Threat Code.